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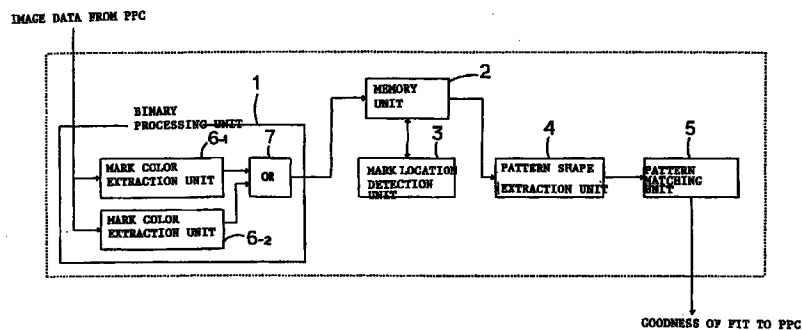
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(54) **Image processing device for detecting one-color marks of a number of colors and image processing method thereof**

(57) To provide an image processing device able to accurately discriminate a specified image in an input image data, the input image is converted to binary based on black and red color extraction blocks (6₁ and 6₂) in binary processing unit (1). These binary data are consolidated by an OR circuit and stored in storage device (2). Mark location detection unit (3) extracts a

square mark from the image data stored in storage device (2). Pattern shape extraction unit (4) extracts another mark which is inside the square mark. Pattern matching unit (5) obtains and outputs the goodness of fit between the extracted marks and previously established marks.



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EUROPEAN SEARCH REPORT

Application Number
EP 96 11 0582

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 147 (P-1336), 13 April 1992 & JP-A-04 001878 (TOYO INK MFG CO LTD), 7 January 1992, * abstract *	1-13	G06K9/46 G06K9/20
A	--- DATABASE WPI Derwent Publications Ltd., London, GB; AN 95-366891 [48] XP002028601 HOU P: "Forming colorimetric mark for preventing forgery of valuable articles" & CN-A-1 095 991 (HOU P) , 7 December 1994 * abstract *	1-13	
A	--- EP-A-0 440 129 (CGA HBS) 7 August 1991 * claims 1,6; figures 1,2 *	1-13	
A	--- EP-A-0 657 839 (RICOH KK) 14 June 1995 * claim 12 *	5	
X	--- RESEARCH DISCLOSURE, no. 349, 1 May 1993, page 292 XP000377191 "REGISTRATION MARKS FOR MACHINE VISION" * the whole document *	13	TECHNICAL FIELDS SEARCHED (Int.Cl.6) G06K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 2 April 1997	Examiner Granger, B
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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